DOCUMENT RESUME

ED 037 136 FL 001 633

AUTHOR Wittmann, Henri
TITLE A Transformational Approach to Teaching German.
PUB DATE 68
NOTE 26p.

EDRS PRICE EDRS Price MF-$0.25 HC-$1.40
DESCRIPTORS *Colleges, Educational Methods, Experimental Programs, Generative Grammar, *German, *Grammar, Indo European Languages, Instructional Materials, *Language Instruction, Linguistics, Linguistic Theory, Methods, Methods Research, Second Language Learning, Syntax, *Transformation Generative Grammar, Transformation Theory (Language)

ABSTRACT

This transformational approach to teaching German, initiated in the fall of 1965, describes an experimental course at McGill University consisting of 156 hours spread into 26 weekly installments of one laboratory and five lecture hours. Detailed in this article are: (1) a priori claims concerning methods, (2) theoretical assumptions about learning and learning materials, (3) use of intuitive and explicit grammar in teaching German, and (4) tests. Extensive language sampling illustrates transformational theory. Pfeffer's word list (1964) and Chomsky's syntactic theory figure eminently in the program design. An extensive bibliography of general references and German transformational grammar is included. (RL)

ED037136

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Henri Wittmann

A TRANSFORMATIONAL APPROACH TO TEACHING GERMAN

McGill University

Montréal, 1968

FL 001 633

0. Introduction

1. Some aprioristic claims

2. Theoretical assumptions about learning and learning materials

3. The use of intuitive grammar in teaching German

4. The use of explicit grammar in teaching German

5. Tests

6. Bibliography

0. This project was started in the fall of 1965. At that time, Professor Armin Arnold of McGill University had asked me to lay out and program an experimental course in beginning German with a "transformational" slant, based on my association with the Colorado teaching experiment 1961-62, then in its second year of operation.[1] The course was to consist of 156 hours spread into 26 weekly installments of 5 lecture and 1 laboratory hours. Since we were to apply a specific framework of theory, our approach was necessarily aprioristic. Such attitudes were specifically entertained towards the following teaching variables: translation, visual aids, phonetic drills, student participation, use of laboratory.

1.1. Translation. As often noted, the practice of translation induces more often than not the sort of "bilingualism" where the second language remains forever in a relationship subordinate to the first. The so-called "direct method" of teaching has been, for some time now, a partial answer to the problem. A policy of "no trans-

lation", does not, of course, entail the avoidance of translation at any costs; the objective is to limit it to the bare essentials and avoid its systematic use.

1.2. Visual aids. What is the role of visual aids in language teaching? It is primarily a means of by-passing translation. Is it one-hundred-percent effective? Obviously not! The kind of visual messages you can convey to your students, as explanatory accompaniments to auditory stimuli, are of four types: (a) physical objects, (b) physical persons, (c) physical relations, and (d) physical situations. If you want to go beyond that, all you can do is imply; a dirty snort can at times do the trick. If you really want to talk in abstract terms, you are really lost. Consequently, the vocabulary build-up has to be structurally consistent, in order to carry on where visual aids leave off.

1.3. Phonetic drills. Pronunciation drills can be quite a waste of time when done for their own sake, outside a meaningful context. Our aim is to duplicate the learning conditions of younger children for the adult, young or old, by-passing the developmental "babbling stage" of the smaller infant, of course.[2] Acquiring new speech habits, as those of German, necessitate the crossing of a psychological barrier, the barrier of ridicule. An adult English speaker will most often refuse to alter his bases for articulation because of fear of ridicule. When told to pronounce the name of the famous composer of fugues as [bax], he will politely ignore the gutturally strident features he hears, and come out with [bak], (assuming he gets the vowel right). The student has "fearful" attitudes toward making such ridiculous noises, which remind him more of Grandpa clearing his throat, after chewing an over-dose of tobacco. An instructor of skill will combine his teaching talents with his talents as an actor (if any), and bring the atmosphere in classroom and laboratory down to a level of frivolity. Indeed, the instructor will play on the students' associations with the

ch-sound rather than suppress them. The students can thus be induced, individually and collectively, to take the whole thing simply as a joke on the house: A splendid "ch" is guaranteed for all. In this way, speech correction can be carried out in the context of ordinary grammar or vocabulary drills, and finally becomes wholly a matter of secondary concern.[3]

1.4. Student participation. Of course, no show would be complete without an audience. It is erroneous to think that the student in individual tutoring gets more attention and therefore learns more. Such learning situations lack the appeal of naturalness, the "thing" people in show business call audience participation of some sort. Twenty-five is the bare minimum to have a good time. It is just enough of a crowd for the individual student to loosen up a bit in the midst of general hysteria, and to get a great kick in the end, one he'll remember. One thing educators tend to forget is that when students, after the torture of a particularly dreary lecture, proceed to drown the recall of it into oblivion at a local tavern, not only do the unhappy circumstances of the lecture go, but the course content is equally affected.

1.5. Use of laboratory. So far, a considerable amount of ink has been used up on the use and abuse of language laboratories (cf. Scherer, 1965). Suffice it to say that the amount of phonetic drills and word-to-word repetitions are generally proportional to your laboratory attendance, unless you have recourse to some dictatorial means, complete with clocks and punch-cards, to (re-)enforce the latter and enhance thereby your statistics. Grammatical drills should be used a great deal; however, great pains should be taken to have the lexical combinations and/or substitutions allusive to the finer points in life. I am willing to offer

as a well befitting example. Tapes may be greatly improved by adding some music. The tapes recorded to go along with the Workbook (1966), for instance, start off somewhat funky. The music fades out to allow the blending in of "This is Beatles 150, welcome to tape number ...", followed by a few words of encouragement. Some Mozart may follow to reconcile the more conservative minds. The conclusion of the tape isn't much different, but backed up with a few words of thanks.

2. Any method of teaching a language, traditional or otherwise, requires at least (a) a finite set of "words" and (b) a finite set of cooccurrence rules for these words. Of course, it would be most economical if the two sets could be absorbed directly as is by the student's mind. Unfortunately, the human mind, though in many ways analogous to the computer, cannot be programmed and reprogrammed with quite as much ease as the latter. For want of anything better, it appears indicated to draw on what we already know about the acquisition of language by children. That would be to have the student abstract these sets from a limited sample of actual sentences of the language presented to him in one way or another. Though we cannot hope to reconstruct the non-linguistic variables characteristic of a child's environment, we can greatly simplify the procedure by ordering that sample of sentences according to criteria of analogy. Thus, the problem of finding adequate teaching materials limits itself to finding a representative sample of sentences.

The method for finding such a sample consists in retracing the steps a student would take from sample to rules under the most favorable conditions, but retracing them in the opposite direction. This means to select (a) the set of "words" and (b) the set of syntactic rules which are to be diluted into the sample. The set of words may be expected to include at least the 1,269 items compiled in

Pfeffer's list (1964). Chomsky's conception of syntax (1965) is most suitable to provide valid criteria for the nature of the syntactic rules. Once one has decided on the syntactic rules essential to the first year, one may start on generating the sample of sentences to be heard by the student. In the first version of our project, this was done entirely by hand. At the present time, we are attempting to programme a computer with (a) the Pfeffer list of items and (b) a set of syntactic rules for German. Hopefully, the computer will print out a representative sample of German sentences.

Obviously, a sample of sentences in random order wouldn't be of much use to any one. There are two devices for relating sentences. The first one would be to group together sentences which are identical except for one item. This is the case for

(1) es geht { mir / dir / ihm / ihr / uns / euch / ihnen } gut

where seven different sentences have been collapsed into a pattern demonstrating the workings of a syntactic rule of the simplest kind. Teacher and student may recover later on all the seven sentences by a drilling process usually called item substitution. The second device consists of sorting out equivalent sentences or comparable sentences except for a residue that can be explained:

(2)

ich	habe				mit
du	hast				dir
er	hat				ihn
sie	hat	das Mädchen gern	⟷	das Mädchen gefällt	ihr
es	hat				ihn
wir	haben				uns
ihr	habt				euch
sie	haben				ihnen

The drilling process for this relation is called a transformation. Lastly, it is reasonable to expect the first sample sentence to be the most simple and the last one to be the most complicated. This presupposes that the same criteria are applied to words as to sentences. Mutter may be derived from Vater by simple substitution, whereas the relationship between Wein and trinken is that of a transformation. Again, we are trying to use the computer in order to improve on the preliminary collection of sample sentences.[4]

3. In presenting the sample sentences to the students, it is desirable to do so without resorting to translation. The meaning of words can be conveyed by supplying extra-linguistic cues, though the use of pictures, sound imitation, pantomime, etc. If the vocabulary build-up is structured as outlined above, more abstract words can be explained from already known ones. For instance, herzlich can be derived simultaneously from Herz and freundlich-warm (plus some acting out). The syntactic pattern of the first sentences has to be implied again through extra-linguistic cues. Once a simple sentence such as Er trinkt Wein is generally understood, it can be varied through the application of item substitution and transformation. Item sub-

stitution and introduction of each item can go hand in hand. Later, the entire verb phrase of sentences such as Fräulein Schuhmann glaubt an den lieben Gott can be substituted with items from an appropriate list, such as:

(3)
kommunistisch wählen
in Strassburg geboren sein
Klavier spielen können
den Freund angerufen haben
den Körper freimachen
etc.

A drill like this demonstrates all the significant differences in German between an infinite and a finite verb phrase. At the same time, you ought to be obvious enough so that the student whose native tongue is English can catch on to the order of elements in the infinitive phrase which is exactly opposite to what he is used to in English.

Among the transformations which can be intuited implicitly, there are some for which the semantic overlappings are more considerable:

(4)
A. Sie liebt ihn heiss.
B. Er wird von ihr heiss geliebt.

(5)
A. Du sollst nicht faul sein.
B. Sei nicht faul!

(6)
A. Die junge Dame hat einen Hut.
B. Der Hut gehört der jungen Dame.
C. Der Hut der jungen Dame
D. Ihr Hut

For others, the transformation adds something new semantically much more tangible. This is the case for relations between plurals and singulars, nouns and pronouns, or

(7) (_) Kocht (_). → (_) Kochte (_).

even though these transformations take the form of simple substitutions. These additions are formally more obvious for

(8) (_) Kocht (_). → (_) hat (_) gekocht.

or the negative transformation or the question transformations.

The question transformations, incidentally, were cultivated extensively throughout the year. Each one necessitates a pattern presentation

(9) A. Er hat IHR Talent stets bewundert.

B. Wessen Talent hat er stets bewundert?

the capitalizing indicating the segment on which the transformation is intended to operate. Drills of various sorts can demonstrate the use of questions, where the student has to supply the answer. The simplest kind is with the answer already implied formally in the question:

(10) Wieviele Ecken hat ein Sechseck?

More sophisticated ones imply the answer semantically, i.e. again only one answer is possible:[5]

(11) Womit näht meine Freundin den Knopf an?

Wenn heute Sonntag ist, was war gestern?

Wie ist die Tinte?

Wonach fragt man an der Grenzkontrolle?

Wieviele Minuten hat die Stunde?

Wo liegt Strassburg?

Wieviele Finger hat die Hand?

Wozu benutzt man die Seife?

A third kind can be answered from cues in the particular classroom environment:

(12) Wie heissen Sie?

Wie fühlen Sie sich?

Welche Farbe hat Ihre Bluse?

Was hängt an dieser Wand?

Finally, a forth kind can be answered from texts previously presented to the class.[6]

A convenient way to put questions into the student's mouth is the directed dialogue:

(13) A. Fragen Sie, ob Fräulein Schuhmann mit Knoblauch kocht.

B. Kocht Fräulein Schuhmann mit Knoblauch?

A. Antworten Sie, dass sie immer mit Knoblauch kocht.

B. Sie kocht immer mit Knoblauch.

It should also be noted, that intonation is not a question of pronunciation, but belongs properly into the domain of a grammar of German.[7]

Embedding transformations may be subordinating or merely coordinating, with imput and output completely or only partially overlapping:

(14) A. Das Mädchen hat hübsche Beine. Sie wohnt bei uns.

B. Das Mädchen, das bei uns wohnt, hat hübsche Beine.

C. Das bei uns wohnende Mädchen hat hübsche Beine.

(15) A. Sie zog sich aus. Es war heiss.

B. Sie zog sich aus, denn es war heiss.

C. Sie zog sich aus, weil es heiss war.

Once transformations are generally understood, the syntactic pattern characterizing the transform (i.e. the output) can be caused to sink deeper by drilling it with further item substitutions. The "cases" are best intuited with transformational drills. Where there exists a binary choice, as for instance in the selection of haben/

sein for the perfect tenses, a simple fill-in drill is quite useful.

4. However, a number of syntactic structures were too idiosyncratic to German to be intuited directly by the student. Here, a rule had to be written out explicitly, in the student's native language, according to criteria of simplicity. Rules were needed for (a) the structure of the noun phrase, (b) the structure of prepositional phrases indicating position or displacement in space, (c) the subjunctive of the verb.

4.1. The Structure of the Noun Phrase

4.1.1. Types of adjectives

Type I: d-, dies-, jen-, jed-, welch-, manch-, solch-, all-, all(-) dies-.

Type II: ein- (becomes Ø when plural), kein-, mein-, dein-, unser-, euer-, sein, ihr-, was für ein-, solch ein-, noch ein-, manch ein-, so ein-, all-mein-, etc.

Type IIIa: alt-, jung-, schön-, etc. There are a few invariables like lila, rosa, prima, Strassburger, Pariser, etc.

Type IIIb: viel-, mehrer-, einig-, wenig-, ganz-, sämtlich-, beid-, etlich-, einzeln-, ein-, ander-, selb-, gleich-, jeglich-, halb-, [ein-] jed-, erst-, zweit-, dritt-, viert-, etc., letzt-, erster-, letzter-, unter-, inner-, etc., innerst-, etc., link-, recht-, etc., alleinig-, [d-] jenig-, heutig-, damalig-, meinig-, deinig-, etc., wie viel-; zwei, drei, vier, etc. are invariables.

Other invariable modifiers:

Type A: etwas, ein wenig, ein bisschen, ein paar, mehr, noch etwas, noch ein paar, noch mehr, etc., (nichts), nur, viel, wieviel, wenig, lauter, ganz, manch, solch, welch, ich, du, wir, ihr.

Type B: selbst, nur, bloss, lauter, nicht einmal, gar, sogar, (all), (doch).

Type C: etwas, all, ein wenig, ein bisschen, nur, (viel), ganz, noch, immer, immer noch, eben, schon, halt, nun, nun (ein)mal, nicht einmal, vielleicht, wohl, doch, wohl doch, eigentlich, nicht, etwa, bloss, [ein-] solch, so, überhaupt.

4.1.2. Types of adjectival endings:

Type X:	singular			plural
	masculine	feminine	neuter	all genders
nominative	-er	-(i)e	-es (-as)	-(i)e
genitive	-es	-er	-es	-er
dative	-em	-er	-em	-en
accusative	-en	-(i)e	-es (-as)	-(i)e
Type Y:				
nominative	-e	-e	-e	-en
genitive	-en	-en	-en	-en
dative	-en	-en	-en	-en
accusative	-en	-e	-e	-en

4.1.3. Selection of endings according to (a) sequence of adjectives and (b) case, number, and gender of the accompanying noun:

		-I.A-	-I-	-II-	-III-	-noun-
A	all	-	X	-	Y	(+)
B	nom.sg.ma. nom.sg.ne acc.sg.ne	-	-	Ø	X	(+)
	all others	-	-	X	Y	(+)
C	gen.sg.ma gen.sg.ne	(+)	-	-	Y	(+)
	all others	(+)	-	-	X	(+)

Invariables type A modify nouns in place of an adjective type I or II. Invariables type B modify noun phrases as a whole. Invariables type C modify adjectives type IIIa and precede them in word order. All lexical combinations only where meaningful, e.g. farblos and grün are incompatible.

4.2. The Structure of Prepositional Noun Phrases Indicating Position or Displacement in Space

4.2.1. Types of prepositions

Type I: aus, von.

Type II: bei, entlang, gegenüber, nächst.

Type III: nach, zu.

Type IV: an, auf, hinter, in, neben, über, unter, vor, zwischen.

Type V: durch, gegen, um.

Type VI: abseits, anstelle, ausserhalb, diesseits, jenseits, innerhalb, inmitten, längs, oberhalb, unterhalb, unweit.

4.2.2. Selection of prepositions and noun phrases according to type of locative [8]

type of locative		preposition	case	noun phrase
A	woher	I	dat.	+
B	wo	II[9]	dat.	+
		IV	dat.	+
		VI	gen.	+
C	wohin	III	dat.	+
		IV	acc.	+
		V	acc.	+

Restrictions: (a) Neuter place names only cooccur with adjectives I/II if simultaneously modified by an adjective type IIIa.

(b) von zu Haus(e), zu Haus(e), nach Haus(e).

4.2.3. Optional contractions

dem: am, im, beim, vom, zum.

das: ans, aufs, durchs, ins, vors, übers.

der: zur.

4.2.4. Prepositional modifiers

ab, her: von dat. NP ab/her

entlang: an dat. NP entlang

herum: um acc. NP herum[10]

hin, zu: auf/gegen acc. NP hin/zu

nach dat. NP hin/zu

hindurch: durch acc. NP hindurch

bis: bis C

bis (nach) place name

weit...(weg): weit von dat. NP (weg)

4.3. The Subjunctive.

4.3.1. Subjunctive endings

	Singular	Plural	Formal
1st	-e	-en	
2nd	-est	-et	-en
3rd	-e	-en	

4.3.2. Formation of the simple subjunctive I

Same for all verbs. The subjunctive endings are added to the infinitive stem. One exception: sein has no -e ending for the 1st and 3rd person singular - ich sei, er sei

4.3.3. Formation of the simple subjunctive II

4.3.3.1. Strong verbs:

The subjunctive endings and Umlaut (if possible) are added to the past indicative, e.g. fahren, fuhr, führe.

Exceptions:	helfen,	half,	hülfe
	schelten,	schalt,	schölte
	schwören,	schwor,	schwüre
	stehen,	stand,	stünde
	sterben,	starb,	stürbe
	verderben,	verdarb,	verdürbe
	werben,	warb,	würbe
	werfen,	warf,	würfe

Strong verbs with weak past indicatives form their subjunctives II like other weak verbs, i.e. backen, mahlen, salzen, spalten.

4.3.3.2. Weak verbs:

(a) Regular weak verbs: The subjunctive II forms are identical with the past indicative.

(b) Modal auxiliaries: The subjunctive II forms have the infinitive vowel.

(c) Irregular weak verbs: bringen, denken, haben and wissen, add Umlaut to the past indicative. Brennen, kennen, nennen, rennen, senden, and wenden have the infinitive vowel; i.e. brennte, kennte, nennte, rennte, sendete, wendete. The subjunctive II form of dünken is identical with the past indicative.

4.3.4. Tenses

The opposition present : past is neutralized in the subjunctive:

1. present tense / past tense: simple subjunctive I or II.

2. present perfect / past perfect: simple subjunctive I or II of haben or sein plus the perfect participle of the verb.

3. future tense: simple subjunctive I or II of werden plus the infinitive of the verb.

4. future perfect: simple subjunctive I or II of werden plus the perfect participle of the verb and the infinitive of haben or sein.

Examples: 1. Er sitze / sässe auf dem Stuhl.

2. Er habe / hätte auf dem Stuhl gesessen.

3. Er werde / würde auf dem Stuhl sitzen.

4. Er werde / würde auf dem Stuhl gesessen haben.

4.3.5. Use of the subjunctive

1. Contrary to fact conditions. Only subjunctive II is used.

2. als ob sentences. Both subjunctive I and II may be used. However, subjunctive I forms are avoided wherever they are identical with the corresponding present indicative forms.

3. damit sentences. Only subjunctive I is used.

4. Indirect discourse. Both subjunctive I and II may be used. In colloquial speech, there is a tendency to prefer subjunctive II to the more literary subjunctive I. In continuous narrative, consistency in the use of subjunctive I is observed by sophisticated speakers and writers. More generally, subjunctive I forms are avoided wherever they are identical with the corresponding present indicative forms.

4.3.6. Time sequence in indirect discourse

There are three time relations between the governing verb and the verb in indirect discourse:

1. Simultaneousness (Gleichzeitigkeit). Either the simple subjunctive I or the simple subjunctive II is used.

2. Anteriority (Vorzeitigkeit). Subjunctive I or II of the auxiliary haben or sein plus the perfect participle of the verb in indirect discourse are used.

3. Posteriority (Nachzeitigkeit). Subjunctive I or II of the auxiliary werden plus the infinitive of verb in indirect discourse are used.

4.4. Drills

The most direct way of drilling is by item substitution. Replacing one noun by another, a type I adjective by a type II, a singular by a plural, or one verb stem by another usually necessitates replacing something else in the sentence as well, in order to preserve grammatical agreement. Fill-ins can also be useful but ordinarily less inspiring. Transformations allow drilling several things simultaneously. For instance, the directed dialogue can be used to practice the locative and word-order, the active-passive transformation to perform the possible reorientations of the subject-object relation and the choice of adjectival endings. In the following examples, the purpose of the drill is always self-explanatory.

A. Dieses Bett gehört mir.

B. Das ist mein Bett. etc.

A. Die Beine sind hübsch.

B. Das sind hübsche Beine. etc.

A. Ihre Beine sind hübsch.

B. Sie hat hübsche Beine. etc.

A. Ich kenne eine Kneipe. Sie ist interessant.

B. Ich kenne eine interessante Kneipe. etc.

A. Das Fräulein fragte mich: "Was kann ich für Sie tun?"

B. Das Fräulein fragte mich, was sie für mich tun könne. etc.

A. Sie hat einen neuen Wagen.

B. Wenn sie doch nur einen neuen Wagen hätte! etc.

In the end, it should be noted that some operations consist, strictly speaking, of both a substitution and a transformation. Though the teacher ought to be entirely aware of such distinctions, the student need not be made conscious of such technicalities, as long as he performs the operation correctly.

5. Ideally, tests should bring all four skills (listening, speaking, reading, writing) into play. Ordinarily, this proves to be a very wasteful procedure, since it is almost impossible to judge objectively, let's say, a healthy pile of student tapes. Written responses to visual or auditory stimuli turned out to be the most economical approaches in our experiment. The student would, for instance, be presented with a prerecorded tape and preprinted answer sheet at his arrival for the laboratory period and then be left to himself. Since these tests were all based on the principles of substitution and transformation, they need not be discussed here. In the Workbook, two units (one for each semester) were devoted to sample tests, in order that the student might not be left in doubt as to what would be expected from him.

6. BIBLIOGRAPHY

The first section contains only the most elementary references, whereas the second attempts to be a listing of theoretical work in the transformational grammar of German, orthodox or otherwise, or work relevant to such a grammar. The list should be useful to anyone wishing to come to grips with the conceptions underlying any transformational approach to teaching German. For wider issues on the relation of traditional linguistics and teaching, the following indications are given: Bach (1964) and Koutsoudas (1966) as general introductions to transformational grammars; Chomsky (1965), Martinet (1960), and Wittmann (1968) as introductions to conceptions of language; Delattre (1965) and Wängler (1964) for German phonetics; all with bibliographies. A linguistics reading list, general and applied, especially conceived for the teacher of German may be found in Ferguson & Stewart (1963); Politzer (to appear in 1968) will hopefully bring this list up to date. There is no adequate listing of work in the transformational grammar of German in view, so [6.2] is offered to fill this need in the meantime.

6.1. General references

E. Bach, An Introduction to Transformational Grammars (New York, 1964).

N. Chomsky, Aspects of the Theory of Syntax (Cambridge, Mass., 1965).

P. Delattre, Comparing the Phonetic Features of English, French, German, and Spanish (Heidelberg, 1965).

C.A. Ferguson & W.A. Stewart, eds., Linguistics Reading Lists for Teachers of Modern Languages (French, German, Italian, Russian, Spanish) (Washington, D.C., 1963).

M. Halle, 'Phonology in Generative Grammar', Word 18.54-72 (1962).

A. Koutsoudas, Writing Transformational Grammars: An Introduction (New York, 1966).

A. Martinet, Eléments de linguistique générale (Paris, 1960).

J.A. Pfeffer, Grunddeutsch: Basic (Spoken) German Word List, Grundstufe (Englewood Cliffs, N.J., 1964).

No. 1 of the Publications of the Institute for Basic German (University of Pittsburgh). 11 issues are planned up to date.

R.L. Politzer, Teaching German: A Linguistic Orientation (forth-coming).

G.A.C. Scherer & M. Wertheimer, A Psycholinguistic Experiment in Foreign-Language Teaching (New York, 1964).

G.A.C. Scherer, 'The Use and Misuse of Language Laboratories', German Quarterly 38. 335-44 (1965).

H.H. Wängler, Atlas deutscher Sprachlaute (East Berlin, 1964).

H. Wittmann, Workbook in Beginning German I (McGill University Bookstore, 1966).

Part II with J. Jaehrling, unbound mimeograph.

H. Wittmann, 'Zur Grundfrage der modernen Sprachwissenschaft', Die Sprache 14.1-12 (1968).

6.2. German transformational Grammar

E.H. Antonsen, 'Suprasegmentals in German', Lg. 42.587-601 (1966).

Cf. Wittmann (1968).

J. Applegate, 'Syntax of the German Noun Phrase', in Proceedings of the National Symposium on Machine Translation 280-5 (Englewood Cliffs, N.J., 1961).

Arbeitsstelle Strukturelle Grammatik der deutschen Gegenwartssprache (M. Bierwisch, A.V. Isačenko, W. Motsch, et al.), ed., Studia Grammatica (East Berlin, 1962 ff.). A series in which a number of German-speaking transformationalists publish the results of their work.

W. Arndt, '"Modal particles" in Russian and German', Word 16.323-36 (1960).

E. Bach, 'The Order of Elements in a Transformational Grammar of German', Lg. 38. 263-9 (1962).

E. Bach, Review of Bierwisch (1963), Lg. 40.605-15 (1964).

E. Bach, Review of Kufner (1962), German Quarterly 37.182-6 (1964).

E. Bach, Review of Vater (1963), Lg. 42.809-14 (1966).

K. Baumgärtner, Review of Hartung (1964b), Phonetica 17.58-62 (1967).

K. Baumgärtner, Review of Motsch (1965a), Phonetica 14.51-3 (1966).

M. Bierwisch, Grammatik des deutschen Verbs (East Berlin, 1963), 2nd ed. (East Berlin, 1965) = Studia Grammatica 2.

Rev. by: E. Bach, Lg. 40.605-15 (1964); B. Grunig, Etudes germaniques 14. 306-8 (1964); P. Hartmann, Germanistik 5.539 (1964).

M. Bierwisch, 'Regeln für die Intonation deutscher Sätze', Studia Grammatica 7.99-201 (1966).

M. Bierwisch, 'Some Semantic Universals of German Adjectivals', Foundations of Language 3 1-36 (1967).

M. Bierwisch, 'Syntactic Features in Morphology: General Problems of so-called Pronominal Inflection in German', To Honor Roman Jakobson 1.239-70 (The Hague, 1967).

M. Bierwisch & W. Wurzel, Studien zur deutschen Lautstruktur (East Berlin, to appear) =Studia Grammatica 8.

K. Boost, Neue Untersuchungen zum Wesen und zur Struktur des deutschen Satzes (East Berlin, 1956).

J.S. Bross, 'Problems of Equivalence in Some German and English Constructions', Mechanical Translation 7.8-16 (1962).

G. Cauquil, A. Claudel, & E. Galichet, 'Remarques sur l'analyse de la phrase allemande en système context free', Revue de langage et comportement 1.75-89 (1965).

Centre d'Etudes pour la Traduction Automatique, ed., Etudes morphologiques de l'allemand (Grenoble, 1963).

N. Chomsky & F. Lukoff, 'Construction of the German Verb Phrase', Mechanical Translation Group Memorandum of the M.I.T. Research Laboratory of Electronics (Aug. 12, 1955).

D. Clement, 'Zur Frage der Reihen-folge mehrerer Attribute in einer Nominalphrase im Deutschen', mimeo (U. of Stuttgart, 1967).

J.E. Copeland, A Stepmatricial Generative Phonology of German (Cornell U. Diss., 1965).

W.O. Dingwall, 'Transformational Generative Grammar and Contrastive Analysis', Language Learning 14.147-60 (1964).

H Eggers, 'Syntaktische Analyse einfacher deutscher Sätze mit Hilfe des Elektronenrechners', in Syntax und Datenverarbeitung, Forschungsberichte 5.91-4 (Wiesbaden, 1964).

J Firbas, 'Thoughts on the Communicative Function of the Verb in English, German and Czech', Brno Studies in English 1.39-63 (1959).

W Flämig, Zum Konjunktiv in der deutschen Sprache der Gegenwart (East Berlin, 1959).

J Fourquet, Grammaire de l'allemand (Paris, 1952).

J Fourquet, 'La construction de la phrase allemande', mimeo (Paris, 1959).

J Fourquet, 'Phonologie und Dialektforschung am Elsässischen', Phonetica Suppl. 4.85-92 (1959).

H Glinz, Deutsche Syntax (Stuttgart, 1965).

B Grunig, Review of Bierwisch (1963), Etudes germaniques 14.306-8 (1964).

A Hale, Review of Motsch (1965a), Foundations of Language 2.295-316 (1966).

M Halle, 'The German Conjugation', Word 9.45-53 (1953).
Cf. Ulvestad (1956).

P Hartmann, Review of Bierwisch (1963), Germanistik 5.539 (1964).

P Hartmann, Review of Motsch (1965a), Germanistik 5.541-2 (1964).

W. Hartung, 'Die Passivtransformationen im Deutschen', Studia Grammatica 1.90-114 (1962).

W Hartung, 'Die bedingenden Konjunktionen der deutschen Gegenwartssprache', Beiträge zur Geschichte der deutschen Sprache und Literatur (Halle) 86.350-87 (1964).

W. Hartung, Die zusammengesetzten Sätze des Deutschen (East Berlin, 1964) = Studia Grammatica 4.

Rev. by: K. Baumgärtner, Phonetica 17.58-62 (1967).

K E Heidolph, 'Verbindungen aus zwei Adjektiven und einem Substantiv im Deutschen', Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikations 14.131-42 (1961).

K.E Heidolph, Beziehungen zwischen Kompositum und attributiven Substantivkonstruktionen in der deutschen Gegenwartssprache (Humboldt U. Diss., East Berlin, 1962).

K E Heidolph, 'Einfacher Satz und Kernsatz im Deutschen', Acta Linguistica (Budapest) 14 97-110 (1964).

G. Heike, 'Das phonologische System des Deutschen als binäres Distinktionssystem', Phonetica 6.162-76 (1961).

A.V. Isačenko, 'Kontextbedingte Ellipse und Pronominalisierung im Deutschen', in Festschrift Steinitz 163-74 (East Berlin, 1965).

A.V. Isačenko, 'Das syntaktische Verhältnis der Bezeichnung von Körperteilen im Deutschen', Studia Grammatica 5.7-27 (1965).

A.V. Isačenko & H.J. Schädlich, 'Untersuchungen über die deutsche Satzintonation', Studia Grammatica 7.7-67 (1966).

G. Kaufmann, Grammatik der deutschen Grundwortarten (Munich, 1967).

P. Kiparsky, 'Stress in Modern German', LSA paper (Summer, 1964).

P. Kiparsky, 'Uber den deutschen Akzent', Studia Grammatica 7.69-98 (1966).

E. Klima, 'Constituent Structure and Word Order Rules for German', M.I.T. Quarterly Progress Report, Research Lab. of Electronics 77 (1965).

B.J. Koekkoek, 'The Stress of the German "Accented Adverb"', SIL 14.14-20 (1959).

H.L. Kufner, The Grammatical Structures of English and German (Chicago, 1962).

Rev. by: E. Bach, German Quarterly 37.182-6 (1964); P. Schachter, Word 20.262-6 (1964).

I. Langerhans, 'Transformational Translation: English to German', Transformations and Discourse Analysis Projects, Report 50 (U. of Pennsylvania, 1963).

E. Mater, Rückläufiges Wörterbuch der deutschen Gegenwartssprache (Leipzig, 1963).

G.H. Matthews & S. Rogovin, 'German Sentence Recognition', Mechanical Translation 5. 114-120 (1958).

J.C. McKay, 'Some Generative Rules for German Time Adverbials', Lg. 44.25-50 (1968).

W.G. Moulton, The Sounds of English and German (Chicago, 1962).

Cf. Antonsen (1966); Wittmann (1968).

W. Motsch, 'Das System der Adjektivableitungsmorpheme in der deutschen Sprache der Gegenwart', Wiss. Zeitschrift der Humboldt-U., Gesellschafts-sprachwiss. Reihe 11. 151-2 (1962).

W. Motsch, 'Zur Stellung der Wortbildung in einem formalen Sprachmodell', Studia Grammatica 1.31-50 (1962).

W. Motsch, Syntax der deutschen Adjektivs, 2nd. ed. (East Berlin, 1965) = Studia Grammatica 3.

Rev. by: K. Baumgärtner, Phonetica 14.51-3 (1966); A. Hale, Foundations of Language 2.295-316 (1966); P. Hartmann, Germanistik 5.541-2 (1964).

W. Motsch, 'Untersuchungen zur Apposition im Deutschen', Studia Grammatica 5.87-132 (1965).

W. Motsch, 'Ein Typ von Emphassätzen im Deutschen', in Steger (1966).

E.M. Pasztor-Brandt, A Study of Invariance under Transformation in a German-English Translation (U. of Denver Diss., 1960).

K. Percival, 'Word Order Rules in German', Proceedings of the 9th International Congress of Linguists 600 (The Hague, 1964).

J.R. Ross, 'Der Ablaut bei den deutschen starken Verben', Studia Grammatica 6.47-118 (1967).

P. Schachter, Review of Kufner (1962), Word 20.262-6 (1964).

H.J. Schädlich, 'Uber "terminale" Intonation im Deutschen', To Honor Roman Jakobson 3.344-53 (The Hague, 1967).

M. Schubinger, 'English Intonation and German Modal Particles: A Comparative Study', Phonetica 12.65-84 (1965).

H. Steger, ed., Vorschläge für eine strukturale Grammatik des Deutschen (Darmstadt, 1966).

M.D. Stepanova, 'Grammatičeskoe modelirovania (na materiale sovremennogo nemeckogo jazyka)'. Inostrannye jazyki v škole 1963:3.3-9.

M.D. Stepanova, 'O transformacionnych modeljach složnych slov v sovremennom nemeckom jazyke', Inostrannye jazyki v vysšey škole 6.40-7 (1964).

W. Thümmel, 'Deutsche und-Koordinationen und die rekursive Kapazität der Transformationsgrammatik', Lingua 20.381-414 (1968).

B. Ulvestad, 'The Strong Verb Conjugation System in German', Word 12.91-105 (1956).

H. Vater, Das System der Artikelformen im gegenwärtigen Deutschen (Tübingen, 1963).

Rev. by: E. Bach, Lg. 42.809-14 (1966).

H. Vater, 'Zur Tiefenstruktur deutscher Nominalphrasen', in Steger (1966).

J. Viertel, 'Inseparable Prefixes of German Verbs', M.I.T. Quarterly Progress Reports, Research Lab. of Electronics 65 (1962).

Wirkendes Wort, Sammelband I: Sprachwissenschaft (Düsseldorf: Pädagogischer Verlag Schwann, 1962).

W. Winter, 'Vom Genitiv im heutigen Deutschen', Zeitschrift für deutsche Sprache 22. 21-35 (1966).

H. Wittmann, 'Inflection of Adjectives in the Germanic Languages', mimeo (University of Alberta, 1963).

H. Wittmann, 'The Prosodic Formatives of Modern German', mimeo (McGill University, 1968).

H. Wittmann & H. Fischer, 'Die Verteilung der diminutivierenden /šə/ und /jə/ im Mittelfränkischen', Etudes germaniques 14.165-7 (1964).

W. Wurzel, 'Der Fremdwortakzent im Deutschen', mimeo (Arbeitsstelle Struktwelle Grammatik, East Berlin, 1967).

A.M. Zwicky, 'Noun Plurals and Umlaut in German', LSA paper (Winter 1964).

A.M. Zwicky, 'Umlaut and Noun Plurals in German', Studia Grammatica 6.35-45 (1967).

NOTES

1. For the published report, see Scherer & Wertheimer (1964). Of course, I do not wish to pretend that my association with the experiment and subsequent teaching experience has led me necessarily to results identical to those aired in the report. Henceforth, "Framework of theory" will refer to the set of prejudices I carried with me after the conclusion of the experiment. "Transformational" characterizes a conception of language and language acquisition laid down in the main by Noam Chomsky (1965).

2. Indeed, children, in contrast to adults, are in no need of strategies to acquire a second language. For theirs is still, in the words of Morris Halle (1962), the ability to construct optimal grammars on the basis of a restricted corpus of examples (supposing that the language to be acquired is functional in the child's environment).

3. There exists a notion that the goal of all "foreign language" learning is to master the pronunciation of a native at all costs. Unless you wish to pass for something you are not, you might as well pursue the career of a secret agent. In any event, pronunciation drills don't constitute a guarantee to native-like pronunciation. A colleague of mine, after constructing phonetic drills for his students for a number of years, still speaks English today with a most distinct French "accent".

4. See Wittmann (1966). For Part II, I acknowledge the collaboration of J. Jaehrling and the College Entrance Book Company (New York). I am particularly indebted to Heinz Fischer for his many indirect contributions.

5. It seemed unwise to use any questions with several possible answers.

6. These texts were frequent and centered mostly around Fräulein Schuhmann, presumably a native of Strassburg.

7. The same is true for grammatical stress: Dort oben hängt éine Lampe, nicht zwéi Lampen; but: Dort oben hängt eine Lámpe, nicht ein Béttuch.

8. Wo, woher, wohin constitute three distinct categories of expression. Transforming one into another corresponds to replacing either (a) the preposition, (b) the case symbol, or (c) both in the surface structure. Again, lexical agreement between preposition and noun phrase on one hand and prepositional phrase and verb on the other are prerequisites to full grammaticality. There may be quite a bit of redundancy in the agreement between verb and prep. phrase, as for instance in im Bett liegen (not *im Bett legen or *ins Bett liegen), where the "locative" wo (to the exclusion of woher or wohin) is signaled twice.

9. gegen über and entlang may (optionally) follow the noun. However, Noun Phrase + entlang replaces (obligatorily) the dative with the accusative.

10. um ... herum may be a locative type C and B.